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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,979	09/19/2003	Peter Surma	34874-062 UTIL	5371

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EXAMINER	
HOANG, HIEU T	
ART UNIT	PAPER NUMBER
2452	
MAIL DATE	DELIVERY MODE
10/10/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/665,979	SURMA ET AL.	
	Examiner	Art Unit	
	HIEU T. HOANG	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 July 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/23/2008 has been entered.

2. Claims 11-18 have been cancelled.

3. Claims 1-10 are pending.

Response to Arguments

4. Applicant's arguments with respect to the rejection of claims 1-10 have been fully considered but are found unpersuasive.

5. Arguments wherein "wrapping" is different from "prefixing" a message are unpersuasive. Given broadest reasonable interpretation, "wrapping" is any form of encapsulating or prefixing or concatenating... to a message. Applicant further argues that wrapping enables routing. This limitation is not recited in the claims. The cited passage disclosed on page 6 of the Remarks, (Eisenhauer, 3.1.1), Eisenhauer discloses a method of marshalling using PBIO's approach, which is significantly simpler than conventional approach (footnote on page 6 of the Remarks is a conventional approach that requires formatting of messages) and is "computationally inexpensive", where marshaling only requires a message to be prefixed with a format token and

another 32-bit length element in order to make the message conform to 'wire format', which is the format to be transmitted. PBIO's marshalling by prefixing can be read as wrapping, since data are sent "largely as it appears in memory of the sender's side" (Eisenhauer, 3.1.1), and does not require any formatting or converting of the message before routing to the receiver. In other words, prefixing the message enables the message to be routed to the destination. There is no disctinction between the claimed "wrapping" and "prefixing" in the prior art.

6. Arguments that the prior art does not teach a routing module and a mapping module are also unpersuasive. Any software module that enables recognizing receiver's application and message format. Eisenhauer does teach determining receiver's application and message format (3.2.2, using a format cache for storing and retrieving application formats)

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. For claim 1, "the receiving application" on lines 13-14, "the markup language envelope" on line 16-17, "the same message format" on line 8, "the sending and receiving application" on line 17 lack antecedent basis. "The sending and receiving

application *have* the same message format" on lines 8, 9, 17-18…is believed to be a grammatical error. Correction is needed.

10. For claim 2, "the extensible markup language" should be "extensible markup language."

11. For claim 7, "converting the format of *the* received message" is vague. First, "the received message" lacks antecedent basis. Second, it is vague what is the message format converted to and why. Because wrapping the message *can* include converting the message (the wrapping step does not exclude converting), therefore claiming wrapping the message when message formats are the same and converting the message when message formats are different can mean doing the same step of converting the message regardless of message formats, which is conventional in the art.

12. Claim 7 recites the phrases "substantially identical" and "substantially different." Given that "substantially" is a relative term, "identical" means "exactly same". The claims are vague and indefinite by what the applicants mean "substantially identical" and "substantially different." Removing the word "substantially" is suggested as an amendment.

13. Thorough revision of the pending claims for similar errors is required.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

15. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eisenhauer et al. (Native Data Representation: an Efficient Wire Format for High Performance Computing, hereafter Eisenhauer), in view of Erickson et al. (US 6,851,089, hereafter Erickson), further in view of Schroeder et al. (US 2002/0099735, hereafter Schroeder)

16. For claim 1, Eisenhauer disclose in an application integration system that communicates messages between applications, a computer-implemented method for transmitting electronic messages that preserves a message format native to both a sending application and at least one receiving application, the method comprising:

receiving a message from the sending application, the message having a message format used by the sending application (3.1.1 lines 1-4, sending message with a format);

wrapping the message in an envelope (3.1.1 lines 1-4, marshalling is to prefix or wrap the message with a format token), wherein the wrapping is performed when the sending and receiving application have the same message format (p. 2, par. 4, lines 8-11, when sender and receiver use same data presentation, no message formatting is required); and

wherein when the sending and receiving application have different message formats, converting at the application integration system, the message from the message format of the received message to another message format (p. 2, par. 4, lines 12-13, when sender and receiver use different data presentation, formatting is done)

the application integration system comprising a routing module to determine the receiving application and a mapping module to determine the message format of the receiving application (p. 2, par. 4, software modules for determining whether sender and receiver use same data presentation formats or not, 3.2.2, format servers and format cache for storing and retrieving application message formats).

routing the envelope including the wrapped message through the application integration system without converting the message in the envelope to the other message format, when the sending and receiving application have the same message format (3.1.1, last sentence, send out the marshaled file to the receiving side);

unwrapping the message from the envelope when the sending and receiving application have the same message format (3.1.2, unmarshalling, for homogeneous data exchange, overhead/cost of unmarshalling is zero); and

transmitting the unwrapped message according to the message format to the receiving application when the sending and receiving application have the same message format (3.1.2, par.1 last sentence, section 1, par. 4, unmarshalling without converting in homogeneous data format exchange).

Eisenhauer does not disclose: the envelope is a markup language file envelope;

However, Erickson discloses the same (abstract, col. 25 line 57-col. 26 line 15, common file format XML, XML wrapper creation and reproduction)

It would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Eisenhauer and Erickson to implement a markup language file envelope such as an XML envelope in the invention of Eisenhauer to conform to XML standards since XML is a common and universal markup language.

Eisenhauer-Erickson does not explicitly disclose:

when the sending and receiving application have different message formats converting the message format of the received message before transmission to the receiving application.

However, Schroeder discloses when the sending and receiving application have different message formats converting the message format of the received message before transmission to the receiving application (fig. 4, mapping and normalizing inbound data (from a sending application) to XML format before sending the data to a receiving application)

Therefore, it would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Eisenhauer and Erickson Schroeder and to provide a mechanism for storing and retrieving a wrapper for subsequent use by using XML wrapper serialization technique (Erickson, abstract) and also convert messages to XML only when needed by checking for sender and receiver's message formats as taught by Eisenhauer to reduce overhead.

17. For claim 2, the claim is rejected as in claim 1. Eisenhauer-Erickson-Schroeder further discloses the markup language corresponds to extensible markup language (XML) (Erickson, col. 25 line 57-col. 26 line 15, XML).

18. For claim 3, the claim is rejected as in claim 2. Eisenhauer-Erickson-Schroeder further discloses the message includes one or more data objects, and wherein wrapping the message in a markup language file envelope includes serializing one or more data objects to form an XML file (Erickson, col. 25 line 57-col. 26 line 15, serialization).

19. For claim 4, the claim is rejected as in claim 3. Eisenhauer-Erickson-Schroeder further discloses unwrapping the message from the markup language file envelope includes deserializing the one or more data objects (Erickson, col. 25 line 57-col. 26 line 15, serialization reproduction).

20. For claim 5, the claim is rejected as in claim 1. Eisenhauer-Erickson-Schroeder further discloses the message format is an Idoc message format (Schroeder, fig. 7a, Idoc message format).

21. For claim 6, the claim is rejected as in claim 1. Eisenhauer-Erickson-Schroeder further discloses storing a copy of the message (Eisenhauer, 3.2.2, fig. 3, 4, caches).

22. For claim 7, Eisenhauer discloses a computer-implemented method for transmitting a message from a sending application through an application integration system, the method comprising:

determining, at a routing module, a receiving application of the message; determining, at a mapping module, a file format used by the receiving application (3.2.2, software modules for caching and retrieving file formats of sending and receiving application, p. 2, par. 4, software modules for determining whether sender and receiver use same data presentation formats or not);

when the file format used by the receiving application is substantially identical to a file format used by the sending application (3.1.2, par.1 last sentence, section 1, par. 4, unmarshalling without converting in homogeneous data format exchange), wrapping the message in a file envelope and when the sending and receiving applications have substantially different file formats (3.1.1 lines 1-4, marshalling is to prefix the message with a format token without converting the message);

routing the file envelope with the message through an application integration system to the receiving application (3.1.1, last sentence, send out the marshaled file to the receiving side, fig. 4, routing from sender to format server to receiver),

the application integration system comprising the routing module to determine the receiving application and the mapping module to determine the file format of the receiving application (3.2.2, software modules for caching and retrieving file formats of sending and receiving application, p. 2, par. 4, software modules for determining whether sender and receiver use same data presentation formats or not);

Eisenhauer does not disclose the envelope is a markup language file envelope;

However, Erickson discloses the same (abstract, col. 25 line 57-col. 26 line 15, common file format XML wrapper)

It would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Eisenhauer and Erickson to implement a markup language file envelope such as an XML envelope in the invention of Eisenhauer to conform to XML standards since XML is a common and universal markup language.

Eisenhauer-Erickson does not explicitly disclose the wrapping step is in response to the condition of the file format used by the receiving application is substantially identical to a file format used by the sending application;

However, Eisenhauer discloses that if the file format used by the receiving application is substantially identical to a file format used by the sending application, the receiving end uses the wrapped file from the envelope without converting to the receiving end file format (3.1.2, par.1 last sentence, section 1, par. 4).

Eisenhauer-Erickson does not explicitly disclose converting the format of the received message.

However, Schroeder discloses the same (fig. 4, mapping and normalizing inbound data (from a sending application) to XML format before sending the data to a receiving application)

Therefore, it would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Eisenhauer and Erickson and Schroeder to provide a mechanism for storing and retrieving a wrapper for subsequent use by using

wrapper serialization (Erickson, abstract), and also checking for file format at the sender side instead of at the receiving end side to avoid high conversion overheads (Eisenhauer, 3.1.2, par.1 last sentence).

23. For claim 8, the claim is rejected as in claim 7. Eisenhauer-Erickson-Schroeder further discloses the markup language file envelope defines an XML envelope having as a payload one or more serialized data objects of the message (Erickson, col. 25 line 57-col. 26 line 15, XML serialized message wrapper).

24. For claim 9, the claim is rejected as in claim 7. Eisenhauer-Erickson-Schroeder further discloses determining a file format used by the receiving application further includes retrieving file format data from a directory (Eisenhauer, 3.2.2, format caches).

25. For claim 10, the claim is rejected as in claim 7. Eisenhauer-Erickson-Schroeder further discloses determining a receiving application of the message includes retrieving receiving application data from a directory based on the content of the message (Eisenhauer, 3.2.2, format caches).

Conclusion

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hieu T. Hoang whose telephone number is 571-270-

1253. The examiner can normally be reached on Monday-Thursday, 8 a.m.-5 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HH

10/02/2008

/Kenny S Lin/

Primary Examiner, Art Unit 2152